IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: LIAW et al.	Group Art Unit: Unknown (parent app Group Art Unit: 2781)
Serial No. To be assigned (Continuation of Serial No. 09/507,303)	Examiner: Unknown) (parent app Examiner: R. Dharia
Filed: Herewith	Attorney Docket No. 9797-080-999
For: *High-Frequency Bus System*	Date: March 15, 2001

PRELIMINARY AMENDMENT

Assistant Commissioner for Patents
Washington D.C. 20231

Sir:

Please amend this application as follows:

In the Claims:

Please cancel claims 1-13.

Please add the following new claims:

14. An apparatus comprising:

a first substrate;

a first signal trace disposed on a surface of the first substrate;

a connector coupled to the first signal trace; and

a first capacitor including:

a first capacitor electrode connected to a junction point between the connector and the first signal trace; and

a second capacitor electrode coupled to a node that is at a supply potential.

15. The apparatus of claim 14 wherein one of the first and second capacitor electrodes comprises a conductive pad disposed on the surface of the first substrate.

16. The apparatus of claim 14 wherein the first substrate is a memory module substrate, and the apparatus further comprises a plurality of memory devices coupled to the first signal trace.

17. The apparatus of claim 14 wherein the supply potential is a ground potential.

18. The apparatus of claim 14 further comprising a conductive plane disposed parallel and beneath the surface of the first substrate, the conductive plane being at a ground potential.

19. The apparatus of claim 18 further comprising a dielectric disposed between the first signal trace and the conductive plane.

20. The apparatus of claim 14 wherein the first signal trace comprises a microstrip.

21. The apparatus of claim 14 wherein the substrate is a printed circuit board.

22. The apparatus of claim 14 wherein the connector comprises a pin connected to the first signal trace.

23. The apparatus of claim 14 wherein the connector includes a first impedance value, and the first signal trace includes a second impedance value, the first impedance value being different from the second impedance value.

24. The apparatus of claim 23 wherein the first capacitor reduces the difference between the first and second impedance values.

25. The apparatus of claim 14 further comprising:

a second substrate;

a second signal trace disposed on a surface of the second substrate;

a connector interface coupled to the second signal trace, to mate with the connector and electrically couple the second signal trace to the first signal trace;

a second capacitor including:

a first capacitor electrode connected at a junction point between the connector interface and the second signal trace; and

a second capacitor electrode coupled to a node that is at the supply potential.

26. The apparatus of claim 25 wherein the first substrate is a motherboard and the second substrate is a daughter board.

27. The apparatus of claim 25 wherein the second capacitor reduces a difference between an impedance value of the second signal trace and an effective impedance value resulting from the connector mating with the connector interface.

28. The apparatus of claim 25 wherein the connector interface comprises a conductive pad disposed on the surface, adjacent to an edge of the second substrate.

29. A circuit board comprising:

a conductor disposed on a surface of the circuit board;

a connector including a contact for mating to another circuit board, the contact being connected to the conductor; and

a capacitor including:

a first capacitor electrode connected to the connector where the contact connects to the conductor; and

a second capacitor electrode coupled to a node that is at a supply potential.

30. The circuit board of claim 29 wherein the contact is a conductive pad disposed on the surface, adjacent an edge of the surface of the circuit board.

31. The module of claim 29 wherein one of the first and second capacitor electrodes is a conductive pad disposed on the surface of the circuit board.

32. The circuit board of claim 29 wherein the contact is a pin and the connector comprises a socket for accepting insertion of another circuit board.

33. The circuit board of claim 29 wherein the supply potential is a ground potential.

34. The circuit board of claim 29 further comprising a conductive plane disposed parallel to and beneath the surface of the module, the conductive plane being at a ground potential.

35. The circuit board of claim 34 further comprising a dielectric disposed between the conductor and the conductive plane.

36. The circuit board of claim 29 wherein the contact includes a first impedance value, and the first signal trace includes a second impedance value, the first impedance value being different from the second impedance value.

37. The circuit board of claim 36 wherein the capacitor reduces the difference between the first and second impedance values.

38. A circuit board comprising:

a conductor disposed on a surface of the circuit board, the conductor having a first impedance value;

a connector having a contact coupled to the conductor, the contact having a second impedance value that is different from the first impedance value; and

a capacitive structure coupled to the conductor adjacent the contact to reduce the difference between the first and second impedance values.

39. The circuit board of claim 38 wherein the capacitive structure comprises a conductive pad that is disposed on the surface of the circuit board.

40. The circuit board of claim 38 wherein a width of a first segment of the conductor is varied with respect to a width of a second segment of the conductor.

41. The circuit board of claim 40, wherein the width of the first segment is varied with respect to the second segments to reduce a difference between an impedance value of the first segment of the conductor and an impedance value of the second segment of the conductor.

42. The circuit board of claim 38 further comprising a conductive plane disposed parallel to and beneath the surface of the printed circuit board, the conductive plane being at a ground potential.

43. The circuit board of claim 42 further comprising a dielectric material between the conductor and the conductive plane.

44. The circuit board of claim 38 wherein the contact is a conductive pad disposed on the surface, adjacent an edge of the circuit board.

45. The circuit board of claim 38 wherein the connector comprises a socket that accepts insertion of another circuit board.

REMARKS

Applicant submits herewith a new claim set for consideration by the Examiner. Should the Examiner believe that a telephone interview would help advance the prosecution of this case, the Examiner is requested to contact the undersigned attorney.

Respectfully submitted,

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